

Land Surveying/Geomatics Emphasis

Graduates with a BAS with an emphasis in Land Surveying/Geomatics will be able to:

- Enter professional employment in Land Surveying/Geomatics in Nevada, and in any region of the nation. Satisfy the educational requirement for licensure required by NRS.625.270 for licensure as a Professional Land Surveyor in Nevada.
- Develop competency in the fundamentals and applications of surveying, land management, and the acquisition and management of spatial data.
- Meet or exceed ABET and GBC's BAS general education requirements, so that graduates have adequate background in humanities, social sciences, and the arts, and can function in multicultural environments. Provide background fundamentals in business management to enable graduates to understand business environments and decision-making processes.
- Prepare graduates to take and pass the Fundamentals of Land Surveying examination developed by the National Council of Examiners for Engineering and Surveying (NCEES).

Entrance to the Land Surveying/Geomatics Emphasis requires an earned associate's degree and the completion of a college-level trigonometry course.

I. Lower-Division Prerequisites

The following courses or equivalent are prerequisites for completion of the upper-division emphasis requirements:

CADD	100	Introduction to Computer-Aided Drafting and
CADD	105	Intermediate Computer-Aided Drafting, or
CADD	121	CAD for Land Surveyors, or a demonstrated facility with a computer-aided drafting software.
MATH	127	Precalculus II, or
MATH	128	Precalculus and Trigonometry
GIS	205	GIS Applications
PHYS	151	General Physics I and
PHYS	152	General Physics II, or
PHYS	180	Physics for Scientists and Engineers I and
PHYS	181	Physics for Scientists and Engineers II
STAT	152	Introduction to Statistics
SUR	280	Fundamentals of Geomatics I, or an advanced surveying course approved for transfer by the Land Surveying/Geomatics Program Coordinator
SUR	281	Fundamentals of Geomatics II, or an advanced surveying course approved for transfer by the Land Surveying/Geomatics Program Coordinator
SUR	290	Introduction to Urban Development, or courses containing the basic elements of construction surveying, land development, and subdivision design practice approved for transfer by the Land Surveying/Geomatics Program Coordinator.

II. General Education

(Beyond those required for the Associate Degree)

COM	101	Oral Communication, or	
THTR	102	Introduction to Stage Voice, or	
THTR	221	Oral Interpretation	3
ECON	311	Professional Ethics	3
ENG	333	Professional Communications	3
INT	339	Integrative Humanities Seminar, or	
INT	349	Integrative Social Science Seminar	3
INT	359	Integrative Mathematics Seminar, or	
INT	369	Integrative Science Seminar	3
MATH	181	Calculus I	4
U.S. and Nevada Constitution*			1-3

Total credits for Section II 20-22

*All students graduating from Nevada institutions of higher education must satisfy the U.S. and Nevada Constitutions requirement. Contact your academic advisor for details.

III. Applied Science Core

FIN	310	Applied Accounting and Finance	3
MGT	310	Foundations of Management Theory and Practice	3
MGT	323	Organizational and Interpersonal Behavior, or	
MGT	367	Human Resource Management	3
PHYS	152	General Physics II, or	
PHYS	181	Physics for Scientists and Engineers I	4
MGT	441	Operational Quality Control and Problem Solving	3

Total credits for Section III 16

IV. Emphasis Requirements

The following list combines the General Education courses with the exception of the U.S. and Nevada Constitutions requirement: The Applied Science Core courses not required in Section I Lower-Division Prerequisites; and the Land Surveying/Geomatics Emphasis Courses.

COM	101	Oral Communication, or	
THTR	102	Introduction to Stage Voice, or	
THTR	221	Oral Interpretation	3
ECON	311	Professional Ethics	3
ENG	333	Professional Communications	3
FIN	310	Applied Accounting and Finance	3
INT	339	Integrative Humanities Seminar, or	
INT	349	Integrative Social Science Seminar*	3
INT	359	Integrative Mathematics Seminar, or	
INT	369	Integrative Science Seminar	3
MATH	181	Calculus I	4
MATH	182	Calculus II	4
MGT	310	Foundations of Management Theory and Practice	3

MGT	323	Organizational and Interpersonal Behavior, or	
MGT	367	Human Resource Management	3
MGT	441	Operational Quality Control and Problem Solving	3
SUR	320	GIS for Surveyors	3
SUR	330	Introduction to Least Squares Adjustment	3
SUR	340	Photogrammetry and Remote Sensing	3
SUR	360	Public Land Survey System	3
SUR	365	Legal Descriptions	3
SUR	440	Geodetic and GPS Surveying	3
SUR	450	Construction Surveying, or	
SUR	455	Mine Surveying	3
SUR	460	Advanced Boundary Analysis	3
SUR	495	Land Surveying/Geomatics Capstone	3

Total Credits for Section IV 62

*Students admitted to the BAS Program with an associate's degree other than an Associate of Arts or Associate of Science will be required to take both INT 339 and INT 349, increasing the BAS-LS Degree total credits to 65 for graduation.

SUGGESTED COURSE SEQUENCE*
BAS—Land Surveying/Geomatics

FALL—1st Semester		Credits	✓
ENG	333	3	<input type="checkbox"/>
MATH	181	4	<input type="checkbox"/>
SUR	320	3	<input type="checkbox"/>
SUR	340	3	<input type="checkbox"/>
SUR	360	3	<input type="checkbox"/>
TOTAL		16	
SPRING—2nd Semester		Credits	✓
COM	101, THTR 102, or THTR 221	3	<input type="checkbox"/>
INT	339 or INT 349	3	<input type="checkbox"/>
MATH	182	4	<input type="checkbox"/>
SUR	330	3	<input type="checkbox"/>
SUR	365	3	<input type="checkbox"/>
TOTAL		16	
FALL—3rd Semester		Credits	✓
ECON	311	3	<input type="checkbox"/>
INT	359 or INT 369	3	<input type="checkbox"/>
MGT	310	3	<input type="checkbox"/>
SUR	440	3	<input type="checkbox"/>
SUR	460	3	<input type="checkbox"/>
TOTAL		15	
SPRING—4th Semester		Credits	✓
FIN	310	3	<input type="checkbox"/>
MGT	323 or MGT 367	3	<input type="checkbox"/>
MGT	441	3	<input type="checkbox"/>
SUR	450 or SUR 455	3	<input type="checkbox"/>
SUR	495	3	<input type="checkbox"/>
TOTAL		15	

*See page 119.
